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Page 1 of 2

Docket No.: VANM160.001APC

CUSTOMER NO. 20995

Applicant : Remacle, Jose
App. No. : 09/582,817
Filed : November 8, 2000
For : METHOD COMPRISING CAPTURE
MOLECULE FIXED ON DISC SURFACE
Examiner : Sisson, Bradley L.
Group Art Unit : 1634

CERTIFICATE OF FAX TRANSMISSION

I hereby certify that this correspondence and all marked attachments are being transmitted via facsimile to the USPTO Central Fax No. (703) 872-9306 on the date shown below:

January 5, 2005

Marina L. Gordy, Reg. No. 52,950

Transmitted herewith for filing and consideration in the above-referenced application are the following items:

(X) Declaration under 37 C.F.R. §1.132 in 3 pages.

FILING FEES:

FEE CALCULATION				
FEE TYPE		FEE CODE	CALCULATION	TOTAL
Total Claims minus 20; or Previously Paid	25 - 25 = 0	1202 (\$50)	0 x 50 =	\$0
Independent minus 3; or Previously Paid	4 - 4 = 0	1201 (\$200)	0 x 200 =	\$0
Multiple Claim		1203 (\$360)		\$0
1 Month Extension		1251 (\$120)		\$0
2 Month Extension		1252 (\$450)		\$0
3 Month Extension		1253 (\$1,020)		\$0
Terminal Disclaimer	37 CFR § 1.20(d)	1814 (\$130)		\$0
SUB TOTAL				\$0
The present application qualifies for Small Entity status under 37 CFR § 1.27. Fee reduced by 1/2.				(\$0)
General Petition	37 CFR § 1.17(h)	1460 (\$)		\$0
TOTAL FEE DUE				\$0

(X) Total pages in transmission: 5

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Application No.: 09/582817

CUSTOMER NO. 20995

Filing Date: November 8, 2000

The Commissioner is hereby authorized to charge any additional fees which may be required, now or in the future, or credit any overpayment to Account No. 11-1410.



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VANM160.001APC

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Remacle ..
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DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

1. This Declaration is being submitted to demonstrate that fluorescent based techniques are not compatible with conventional CDs or DVDs
2. I am an inventor on the above-identified patent application and am familiar with the specification and prosecution history.
3. I have extensive experience in the field of the claimed invention as indicated in the attached Curriculum Vitae provided herewith as Exhibit A.
4. The method of detection of the claimed invention is based upon the reading of a signal resulting from the binding from the target and the capture molecules that forms a precipitate on the CD or DVD surface, preferably an opaque or magnetic precipitate. Conventional CDs or DVDs are made of a polycarbonate which is not adequate for a detection by fluorescent labels due to their very high levels of auto-fluorescence. To demonstrate the high levels of autofluorescence

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 Filed : November 8, 2000

with discs made of polycarbonates, we conducted experiments in which the levels of autofluorescence of polycarbonate discs and glass were compared.

The experiments were performed as follows. Diaglass slides (2.5 x 7.5 mm) with aldehyde groups (EAT, Namur, Belgium) and a CD recordable (ISP, Tirlemont, Belgium, lot 2K0210) were used as substrates. The CD was cut at the same dimension as the glass slide to allow the reading in a laser scanner. The CD is made of polycarbonate base covered by a protective layer (acrylate).

The two substrates (glass and CD) were scanned in a laser confocal scanner "ScanArray" (Packard, USA) at a resolution of 10 μ m with PMT gain 70% and laser power 100%. The slides were first scanned with an excitation wavelength of 543 nm (Cyanin 3 channel) and then at 633 nm (Cyanin 5 channel). After image acquisition, the scanned 16-bit images were imported to the software, 'ImaGene4.0' (BioDiscovery, Los Angeles, CA, USA), which was used to quantify the emitted fluorescence. The fluorescent signals were quantified in two different areas of the substrate. The quantification of one area was made in the software, 'ImaGene4.0' using a grid of 5 x 30. The average value of the 150 cells within the grid was reported in the table of the result and corresponds to the signal mean for one substrate in one area and for one excitation wavelength. The process was repeated in a second area, for the two substrates and for the two excitation wavelengths. Finally, the mean value of the two areas was calculated for each substrate.

The results are shown in Table 1.

Table 1

		GLASS		CD	
		Signal mean	mean	Signal mean	mean
Cyanin 3	area 1	240,2	234,60	32307,86	32576,04
	area 2	228,99		32844,22	
Cyanine 5	area 1	468,27	459,96	9122,06	8799,19
	area 2	451,65		8476,32	

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In this experiment, the fluorescent background is so high for the CD (especially for Cy3) as compared to glass that spots resulting from the binding between capture and target molecules would not be distinguishable from the background.

6. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or patent issuing therefrom.

Dated: 4 January 2005

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By: 

Jose Remacle